REMARKS

Applicants have studied the Office Action dated September 30, 2003. No new matter has been added. It is submitted that the application, is in condition for allowance. By virtue of this amendment, claims 1-26 are pending. Reconsideration and further examination of the pending claims in view of the above amendments and the following remarks is respectfully requested. In the Office Action, the Examiner:

- Rejected claims 1, 20, and 23-26 under 35 U.S.C. § 103(a) as being unpatentable over Horowitz et al (U.S. Patent No. 6,236,987) in view of Singhal (U.S. Patent No. 6,163,782);
- Rejected claim 2 under 35 U.S.C. § 103(a) as being unpatentable over Horowitz et al (U.S. Patent No. 6,236,987) in view of Singhal (U.S. Patent No. 6,163,782) and in further view of Goiffon et al. (U.S. Patent No. 6453,312);
- Rejected claims 3-5 under 35 U.S.C. § 103(a) as being unpatentable over Horowitz et al (U.S. Patent No. 6,236,987) in view of Singhal (U.S. Patent No. 6,163,782) and in further view of Goiffon et al. (U.S. Patent No. 6453,312) and in further view of Baisley (U.S. Patent No. 6,502,112); and
- Rejected claims 6-18 under 35 U.S.C. § 103(a) as being unpatentable over Horowitz et al (U.S. Patent No. 6,236,987) in view of Singhal (U.S. Patent No. 6,163,782) and in further view of Goiffon et al. (U.S. Patent No. 6453,312) and in further view of Baisley (U.S. Patent No. 6,502,112), and further in view of Chu (U.S. Patent No. 6427,146).

The Applicants wish to thank Examiner Rones for the telephonic interview held Monday December 1, 2003. Discussed was the Singhal reference and the differences between a "search query" and "search results" [1]

[1] It is important to distinguish the terms "query" or "search query" or "search request" with the term "search result" or "search result documents" or "selected documents." The former term "query" is the word or phrase used to construct the search using a search engine, while the later term "result" or "selected document" is the result of such a query.

Final Office Action Is Inappropriate In View of Newly Cited Art of Singhal

Applicants have studied the Office Action dated September 30, 2003. Applicants respectfully request entry of these remarks under the provisions of 37 C.F.R. § 1.116(a) in that the remarks below place the application and claims in condition for allowance, which allowance is respectfully requested.

As an initial matter, the Examiner made the Office Action final based on a new ground of rejection not stated in the earlier Office Action. Applicants respectfully traverse this decision. In the Final Office Action, the Examiner rejects the present claims by citing Horowitz et al (U.S. Patent No. 6,236,987) in view of Singhal (U.S. Patent No. 6,163,782) and in various combinations of Goiffon et al. (U.S. Patent No. 6,453,312) and Baisley (U.S. Patent No. 6,502,112) and Chu (U.S. Patent No. 6,427,146). The Applicants respectfully point out that the Singhal reference was not cited in any previous Office Action.

According to MPEP § 706.07(a): "Under present practice, second or any subsequent actions on the merits shall be final, except where the examiner introduces a new ground of rejection not necessitated by amendment of the application by applicant, whether or not the prior art is already of record." In the previous Office Action dated March 26, 2003, the previous Examiner Prakash C. Punit rejected claims 1, 20, and 23-26 under 35 U.S.C. §102(e) as being anticipated by Horowitz et al. (U.S. Patent No. 6,236,987); rejected claim 2 under 35 U.S.C. § 103(a) as being unpatentable over Horowitz et al (U.S. Patent No. 6,236,987) in view of Goiffon et al. (U.S. Patent No. 6,453,312); rejected claims 3-5 under 35 U.S.C. § 103(a) as being unpatentable over Horowitz et al (U.S. Patent No. 6,236,987) in view of Goiffon et al. (U.S. Patent No. 6,453,312) and in further view of Baisley (U.S. Patent No. 6,502,112); and rejected claims 6-18 under 35 U.S.C. § 103(a) as being unpatentable over Horowitz et al (U.S. Patent No. 6,236,987) in view of Goiffon et al. (U.S. Patent No. 6,453,312) and in further view of Baisley (U.S. Patent No. 6,502,112), and further in view of Chu (U.S. Patent No. 6427,146). In the

previously filed amendment, Applicants amended the independent claims 1, 19, 20, and 23 for clarity and to include an additional limitation of "wherein the comparison system returns a numeric similarity value which represents the similarity of the documents." The Applicants did not switch from one subject matter to another or resort to any subterfuge to keep the application pending.[2] Thus it is respectfully submitted that the final status of the Office Action is premature and should be withdrawn.

If the Examiner does not withdraw the final status of the Office Action, Applicants submit that this response does not raise new issues in the application. It is submitted that the present response places the application in condition for allowance or, at least, presents the application in better form for appeal. Entry of the present response is therefore respectfully requested.

Overview of the Present Invention

Preferred embodiments of the present invention is directed to a method, computer program product and system for measuring the similarity between documents, especially documents which are returned as part of search results in a search engine. The measurement of similarity is provided as a numeric value as an indicator as to how much of the content and/or the structure of two or more documents are similar. The present invention extracts from a search engine each of the search results using a DTD (data type descriptor) scheme. This is necessary because each search engine uses a different format for search result presentation. The present invention solves the time-consuming problem of whether a given document returned in a search results, e.g. document A, has similar content and/or structure of a second document, e.g. document B, returned as part of a search result without the need for the user to open document B. The present invention provides a numeric value as a measure of similarity between documents. Using this numeric value as an indicator, a user can quickly determine how

[2] See MPEP § 706.07.

closely related a given document A is to a second document B and/or other documents. It is important to note that the numeric value as a measure of similarity for documents returned as part of a search result is different than how often the search query appears in a document which is being searched using the search query. A search query is not only a small subset of a document, i.e. the word or phrase in the search query it is also a small portion of the overall document. Take for example, the search query of the word "patent." The word patent appears many times in the MPEP, but the search query does not indicate how similar the contents of the search result are either in content or structure. Continuing with this Example, suppose a user was searching the USPTO website with the search query "35 U.S.C. § 103(a)". Many references would be found including both the MPEP and 35 U.S.C. § 103(a). Using the present invention, the user can compare the similarity of the search results. In this case the document entitled MPEP and the document 35 U.S.C. § 103(a). Continuing further, the MPEP includes the 35 U.S.C. § 103(a) so there would be a high similarity when the user compares the contents and/or structure of 35 U.S.C. § 103(a) with the MPEP. Whereas the search term "35 U.S.C. § 103(a)" by itself returns only all the documents containing this term and perhaps the number of occurrences of this term in the documents returned as part of the search result. However, the number of times a search term appears in a document is not the same as how similar two or more documents are in content and/or structure.

Rejection under 35 U.S.C. §103(a) as being unpatentable over Horowitz in view of Singhal

As noted above, the Examiner rejected claim Rejected claims 1, 20, and 23-26 under 35 U.S.C. § 103(a) as being unpatentable over Horowitz et al (U.S. Patent No. 6,236,987) in view of Singhal (U.S. Patent No. 6,163,782).[3] The Applicants respectfully traverse

[3] The Examiner never addressed independent claim 19 and the Applicants assume that independent claim 19 is also rejected under 35 U.S.C. § 103(a) as being unpatentable over Horowitz et al (U.S. Patent No. 6,236,987) in view of Singhal (U.S. Patent No.

this rejection. As the Examiner states in the office action on page 3, *"Horowitz et al. discloses the claimed invention except for comparing content of at least two documents identified in the search results"* and goes on to combine Singhal.[42] To begin Horowitz as applied to Singhal is silent on "determining if a search engine is coupled to a comparison system for comparing content of at least two documents identified in the search results, wherein the comparison system returns a numeric similarity value which represents the similarity of the documents." The Examiner cites on page 3 of the Office Action Singhal at col. 6, lines 48-67 and col. 7, lines 1-11. The cited section of Singhal is reproduced for convenience below.

> *Having indexed the search query, a simple formula is used to assign a numeric score to every document retrieved in response to the search query. This simple formula, referred to as a "vector inner-product similarity" formula can be as follows:*
>
> *Document score = summation from I to n of (weight.sub.i,Query x weight.sub.i,Doc)**5*
>
> *where weight.sub.i,Query is the weight of word.sub.i in the search query and weight.sub.i,Doc is the weight of wordi in the document being scored. Each document is then sent to the central computer 310, via communication paths 4.1, from the local computer nodes 320, 330 and 340.*

6,163,782). If the Applicants assumption is wrong, the Examiner is respectfully requested to identify with particularity how claim 19 is rejected.

[4] Applicants make no statement whether such combination is even proper.

[5] The equation is abbreviated in this section because the mathematical symbol is readily copyable from the USPTO patent database.

In step 500 of FIG. 1, once all search results have been returned to the central computer via communication paths 4.1, the central computer 310 merges the variously retrieved documents into a list by comparing the numeric scores for each of the documents. The scores can simply be compared one against the other and merged into a single list of retrieved documents because each of the local computers 320, 330 and 340 used the same Global View 510 for their search process. Upon completion of the merging of the documents, a complete list is presented to the system user. How many of the documents are returned to the user can, of course, be pre-set according to user or system criteria. In this manner then, only the documents most likely to be useful, determined as a result of the system user's search query entered, are presented to the system user.

Singhal is clearly teaching how a numeric score is assigned to each document returned in response to a search query. The Applicants respectfully submits that how often a "search query" appears in a document as part of a search result, is not the same as measuring the similarity in content and/or structure of two or more documents which are returned from a search query. In the first instance the occurrence of a search query in a document is returned. In the second instance how similar contents and/or structure of two or more documents are is returned. The contents of a document includes more than just the "search query" and the similarity of two documents therefore is more than a measure of the occurrence of the search query alone. Singhal is silent on comparing the contents of the documents themselves and instead teaches returning a similarity of the documents in response to a search query. Accordingly, the independent claims 1, 19, 20, and 23 distinguish over Horowitz taken alone and/or in view of Singhal for at least this reason.

Moreover, the Federal Circuit has consistently held that when a §103 rejection is based upon a modification of a reference that destroys the intent, purpose or function of the invention disclosed in the reference, such a proposed modification is not proper and the

prima facie case of obviousness cannot be properly made. See In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Here the intent, purpose and function of Singhal is to generate "document score" based on the response to a "search query" using a "vector inner product similarity." In contrast the intent and purpose of the present invention is "a numeric similarity value which represents the similarity of the documents" themselves to each other, where the documents are returned from a search result. The present invention performs a similarity after the search results are returned. In contrast, Singhal is teaching measuring similarity based on the search query string. The Applicants respectfully submit that the measurement of similarity based on "search query" is very different that "similarity of documents" themselves, which are returned as a result of a search. The Applicants respectfully submit that modifying Singhal to provide a "numeric similarity" of the entire document in the search results destroys Singhal's intent on providing similarity based on "search query" as opposed to the contents and/or structure of the documents themselves. Accordingly, the present invention is distinguishable over Horowitz taken alone and/or in view of Singhal for this reason as well.

Independent claims 1, 19, 20, and 23 distinguish over Horowitz taken alone and/or in view of Singhal. All the remaining claims, i.e. claims 2-18, 21-22 and 24-26 depend from independent claims 1, 20, and 23, respectively, since dependent claims contain all the limitations of the independent claims, claims 2-18, 21-22 and 24- 26 distinguish over Horowitz taken alone and/or in view of Singhal, as well.

Rejection under 35 U.S.C. §103(a) as being unpatentable over Horowitz in view of Singhal, Goiffon, Baisley and Chu

As noted above, the Examiner has rejected claim 2 under 35 U.S.C. § 103(a) as being unpatentable over Horowitz et al. (U.S. Patent No. 6,236,987) in view of Singhal (U.S. Patent No. 6,163,782) and in further view of Goiffon et al. (U.S. Patent No. 6,453,312); rejected claims 3-5 under 35 U.S.C. § 103(a) as being unpatentable over Horowitz et al.

(U.S. Patent No. 6,236,987) in view of Singhal (U.S. Patent No. 6,163,782) and in further view of Goiffon et al. (U.S. Patent No. 6,453,312) and in further view of Baisley (U.S. Patent No. 6,502,112); and rejected claims 6-18 under 35 U.S.C. § 103(a) as being unpatentable over Horowitz et al (U.S. Patent No. 6,236,987) in view of Singhal (U.S. Patent No. 6;163,782) and in further view of Goiffon et al. (U.S. Patent No. 6453,312) and in further view of Baisley (U.S. Patent No. 6,502,112), and further in view of Chu (U.S. Patent No. 6427,146). As noted above in the section above entitled "Rejection under 35 U.S.C. §103(a) as being unpatentable over Horowitz in view of Singhal", independent claim 1 distinguishes over Horowitz taken alone and/or in view of Singhal.

Further, the references of Horowitz and/or Singhal in view of Goiffon, Baisley and Chu are silent on "determining if a search engine is coupled to a comparison system for comparing content of at least two documents identified in the search results, wherein the comparison system returns a numeric similarity value which represents the similarity of the documents." Accordingly, independent claim1 distinguishes over Horowitz and/or Singhal in view of Goiffon, Baisley and Chu as well.

All the remaining claims, i.e. claims 2-18 depend from claims 1, 20, and 23, respectively, since dependent claims contain all the limitations of the independent claims, claim 1 distinguish over Horowitz and/or Singhal in view of Goiffon, Baisley and Chu as well.

CONCLUSIONS

The remaining cited references have been reviewed and are not believed to effect the patentability of the claims as previously amended.

In light of the Office Action, Applicants believe these amendments serve a useful

clarification purpose, and are desirable for clarification purposes, independent of patentability. Accordingly, Applicants respectfully submit that the claim amendments do not limit the range of any permissible equivalents.

Applicants acknowledge the continuing duty of candor and good faith to the disclosure of information known to be material to the examination of this application. In accordance with 37 CFR §§ 1.56, all such information is dutifully made of record. The foreseeable equivalents of any territory surrendered by amendment is limited to the territory taught by the information of record. No other territory afforded by the doctrine of equivalents is knowingly surrendered and everything else is unforeseeable at the time of this amendment by the Applicants and their attorneys.

Applicants respectfully submit that all of the grounds for rejection stated in the Examiner's Office Action have been overcome, and that all claims in the application are allowable. No new matter has been added. It is believed that the application is now in condition for allowance, which allowance is respectfully requested.

PLEASE, if for any reason the Examiner finds the application other than in condition for allowance, the Examiner is invited to call either of the undersigned attorneys at (561) 989-9811 should the Examiner believe a telephone interview would advance the prosecution of the application.

Respectfully submitted,

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